

Title (en)
Electrical machine arrangement

Title (de)
Elektrische Maschinenanordnung

Title (fr)
Agencement de machine électrique

Publication
EP 2104225 A1 20090923 (EN)

Application
EP 09250468 A 20090223

Priority
GB 0804866 A 20080317

Abstract (en)
Electrical machine arrangements have advantages with regard to providing local electrical power and starting. Embedding such electrical machine arrangements in machinery such as gas turbine engines is advantageous in removing mechanical linkages and reducing aerodynamic drag. However, the components utilised must be able to withstand harsh environmental conditions and therefore the DC link capacitor used for smoothing of voltage fluctuations are limited to relatively low capacitance densities. Low density DC link capacitors require large sizes which render electrical machines less acceptable for embedded usage. By providing offset of electrical current in inductance elements such as stator windings and stator coils of electrical machines in dead periods of the cycle a reduction in DC link capacitor requirements is achieved reducing the size, weight and complexity of installing electrical machines in gas turbine engines.

IPC 8 full level
H02P 25/08 (2006.01); **H02P 6/00** (2006.01); **H02P 6/14** (2006.01)

CPC (source: EP US)
H02P 6/14 (2013.01 - EP US); **H02P 6/15** (2016.02 - EP US); **H02P 6/28** (2016.02 - EP US); **H02P 25/08** (2013.01 - EP US); **H02P 25/089** (2016.02 - EP US)

Citation (applicant)
• US 5929590 A 19990727 - TANG YIFAN [US]
• US 5703456 A 19971230 - COX KARMEN D [US]
• EP 1209806 A2 20020529 - SWITCHED RELUCTANCE DRIVES LTD [GB]

Citation (search report)
• [X] US 5929590 A 19990727 - TANG YIFAN [US]
• [X] US 5703456 A 19971230 - COX KARMEN D [US]
• [X] EP 1209806 A2 20020529 - SWITCHED RELUCTANCE DRIVES LTD [GB]

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Designated extension state (EPC)
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DOCDB simple family (publication)
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DOCDB simple family (application)
EP 09250468 A 20090223; AT 09250468 T 20090223; GB 0804866 A 20080317; US 37993709 A 20090304